

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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|--------------|---------------------------|-------------|--------------|
| Applicants : | Michael F. Roberts et al. | Art Unit :  | 1744         |
| Serial No. : | 10/036,022                | Examiner :  | Mark Spisich |
| Filed :      | December 26, 2001         | Conf. No. : | 2417         |
| Title :      | GUM-MASSAGING ORAL BRUSH  |             |              |

**MAIL STOP AF**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

REPLY TO FINAL OFFICE ACTION OF JANUARY 31, 2007

SUBMITTED WITH A REQUEST FOR CONTINUED EXAMINATION

An IDS is submitted herewith. Applicants respectfully request consideration of all the references. No claims have been amended since Applicants believe that all claims as presented in Applicants' reply of March 8, 2005 are allowable. Applicants submit the following comments, along with a Request for Continued Examination.

Claims 52-54 and 57 are pending; claim 52 being the only claim in independent form. All claims stand rejected as being obvious over Lion Corporation, Japanese Unexamined Utility Model Application No. 1-72128 ("J-128").

Claim 52 is directed to an oral brush. The oral brush includes, in pertinent part, a brush portion that includes at least one molded elastomeric element. Applicants have found that molding elastomeric bristles provides bristles that are gentle and that have surprisingly good wear resistance.

The J-128 utility model generally discloses an oral cleaning implement employing filaments composed of an engineering elastomer. The engineering elastomer is a melt spinnable (i.e., extrudable) thermoplastic elastomer (see page 4, line 4 of the translation). The two general types of engineering elastomers disclosed in the J-128 utility model are polyether-based thermoplastic elastomers and polystyrene-based thermoplastic elastomers. All of the elastomeric bristles disclosed in the J-128 utility model are melt spun (extruded), or melt spun and drawn (i.e., stretched). The J-128 utility model does not disclose or suggest employing molded elastomeric elements, as claim 52 requires.

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To establish a *prima facie* case of obviousness, the Examiner must establish (1) that the prior art reference (or references when combined) teach or suggest all the claim limitations; and (2) that there is some suggestion or motivation, either in the references themselves, or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or references, or to combine reference teachings; and (3) that there is a reasonable expectation of success.

With regard to (1) above, Applicants respectfully submit that J-128 does not teach or suggest all the limitations of claim 52. In particular, J-128 does not teach or suggest a molded elastomeric element. A person of ordinary skill in the art would understand that “molded” is a structural distinction since it is known to persons of ordinary skill in the art that molding yields a different *microstructure* than extruding, even though the extruded and molded parts may *look* similar from a *macroscopic* point of view.

With regard to (2) above, there is no motivating disclosure in J-128 that would have led one of ordinary skill in the art to mold an elastomeric element rather than extrude and draw the elastomeric element, as the J-128 reference teaches. In fact, since molding and extruding are disparate techniques, the J-128 disclosure actually teaches away from molding by teaching extrusion.

Finally, with regard to (3) above, there would not have been a reasonable expectation of success because persons of ordinary skill in the art would understand that bristles that need to be extruded and drawn (as the J-128 reference teaches) are unlikely to be suitable when molded because the extrusion and drawing technique imparts molecular orientation to the polymeric material that molding simply does not. For example, ordinary nylon 612 toothbrush bristles (monofilaments) are extruded and drawn to improve their bend recovery properties and to improve their wear resistance. A person of ordinary skill in the art knows that molded nylon 612 toothbrush bristles would not be suitable because they would not have the appropriate molecular orientation to provide the needed wear resistance.

Applicants respectfully submit that the Examiner has not established even a single element of the required three elements needed to establish a *prima facie* case of obviousness. As such, Applicants respectfully submit that claims 52-54 and 57, as presented in Applicants’ March 8, 2005, response are in condition for allowance.

Applicants : Michael F. Roberts et al.  
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Attorney Docket No.: 00216-368004 / OB-84D

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Respectfully submitted,

Date: October 30, 2007

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